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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,654	10/24/2003	H. Donald Schwartz	D0419.70008US00	9919

7590 05/25/2006

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EXAMINER

RAEVIS, ROBERT R

ART UNIT PAPER NUMBER

2856

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

11

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/692,654	SCHWARTZ, H. DONALD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert R. Raevis	2856	

All participants (applicant, applicant's representative, PTO personnel):

(1) Robert R. Raevis. (3) \_\_\_\_\_

(2) Shannon Pratt. (4) \_\_\_\_\_

Date of Interview: 23 May 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: 1.

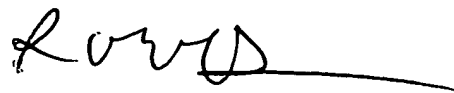
Identification of prior art discussed: \_\_\_\_\_

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

  
RAEVIS

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent and Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Miss Pratt faxed in Remarks in an attempt to show support for claim 1 in the parent application. After review, the Undersigned was of opinion that the parent did not have support for "a chamber defined by the channel block, rod, and cylinder" (line 5 from bottom of claim 1) as the (existence of the) cylinder 20 in the parent plays no part in defining the cylinder. It is the seal 28 in the parent that defines the chamber, and not the cylinder 20. It was noted that the position of the cylinder 20 does play a part in controlling the position of the seal 28, and thus the size of the chamber; but it is the seal 28 that defines the chamber.

NOTE: As a side note not spoken by the Undersigned during the Interview, the Undersigned is hesitant to permit the volume including liquid 30 and seal 28 to be identified as an individual chamber, especially as the seal 28 is attached and moves with the cylinder 20. While the aggregation of volumes that include liquid 30 and seal 28 is a sum total volume, the aggregation of volumes are not in a single "chamber. This "NOTE" may aide Applicant with agreeing with the Undersigned's position.

**F A X C O V E R**

**Date** Tuesday, May 23, 2006 **Number of pages (Including cover):** 4

**To** Examiner Robert R. Raevis

**Company** USPTO

**Your File #** U.S. Application No. 10/692,654

**Tel** 571-272-2204

**Fax** 571-273-2204

**From** Shannon Pratt

**Direct dial** 617.646.8297

**Our File #** D0419.70008U500

ORIGINAL DOCUMENTS SENT: ☐ 1st Class Mail ☐ Overnight Mail ☐ Air Mail ☒ Not Sent

**MESSAGE:** Examiner: Thank you for the opportunity to clarify the support for claim 1 in this application. In essence, in claim 1, the first part of the chamber refers to the "Differential Mode" and the second part of the chamber refers to "Bulk Mode". The relevant portions of the parent case, U.S. Patent No. 6,805,015 should explain these concepts. Also, it may help to keep in mind that the claim relates to relative movement of certain components with respect to other components.

Please call with any questions.  
Sincerely, Shannon

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**Wolf Greenfield Fax Number: 617.646.8646**

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**PATENTS TRADEMARKS COPYRIGHTS TECHNOLOGY TRANSFERS LITIGATION**

# Explanation of Support for claim 1 in US 10/692,654 in parent, U.S. Patent No. 6,805,015

In view of the below-mentioned sections, claim 1 is believed to be supported by its parent, U.S. Patent 6,805,015. Equivalent components from the '015 patent are handwritten in the claim reproduced below:

1. (Previously Presented) A pipette module comprising:

housing <sup>60</sup> a channel block having at least one passage extending therethrough;  
 piston <sup>40</sup> a rod sized, shaped and aligned to pass into the channel block passage;  
 plunger <sup>20</sup> a cylinder having a passage extending therethrough, the cylinder sized, shaped and aligned to pass into the channel block passage from the end opposite the end into which the rod passes;

chamber <sup>30</sup> a chamber defined by the channel block, rod, and cylinder, having a volume which is variable during the pipetting operation of the pipette module, with a first part of the chamber variable by relative movement of the channel block relative to the fixed relative positions of the rod and cylinder, and with a second part of the chamber variable by relative movement of the cylinder relative to the fixed relative positions of the rod and channel block.

first portion 70  
(may be annular)

second portion 72  
 • Relates to "Bulk Mode as described below in the '015 patent"

Relates to "Differential Mode" as described in the '015 patent below

The syringe 10 comprises a plunger 20, a housing 60 concentric with and movable relative to the plunger, and a piston 40 movable in and relative to the housing. The housing 60 defines a fluid receiving chamber 30 at one end of the housing. As seen by comparing FIGS. 1A and 1B, the volume of the chamber 30 is variable, controlled by the relative position of the housing 60 and the piston 40. ('015 patent, Col 6, line 63 – Col. 7, line 3)

The outer surface 64 of the piston is preferably uniformly spaced from the inner surface 66 of the housing to form a portion 70 of the chamber 30. This annular portion 70 thus defines an annular chamber between the outer surface of the piston 64 and the inner surface 66 of the housing. Other shaped segments, however, are contemplated. This may be achieved by shaping the outer surface 64 other than cylindrical. A second portion 72 of the chamber 30 includes the portion between the plunger 20 and the adjacent end of the piston 40. ('015 patent, Col. 7, lines 9-18)

From FIGS. 1A to 1B, the housing 60 and the piston 40 move down away from the plunger 20 and the volume of the chamber 30 is increased. In one embodiment, the volume of the chamber 30 can be varied by either movement of the housing 60 relative to the plunger 20, movement of the piston 40 relative to the plunger 20, or cooperative movement of both the housing 60 and the piston 40 with respect to the plunger 20. ('015 patent, Col. 7, lines 44-51)

**Explanation of Support for claim 1 in US 10/692,654 in parent, U.S. Patent No. 6,805,015**

## Bulk mode

Here, the housing and piston move relative to the plunger.

Thus, this figure shows a chamber with a variable volume, including a second part of the chamber (72) variable by relative movement of the cylinder relative to the fixed relative positions of the rod (piston) & channel block (housing)

(In this embodiment, the cylinder ~~(puncher)~~ does not move, but there is still relative movement of the cylinder relative to fixed relative positions of the rod & (channel block)

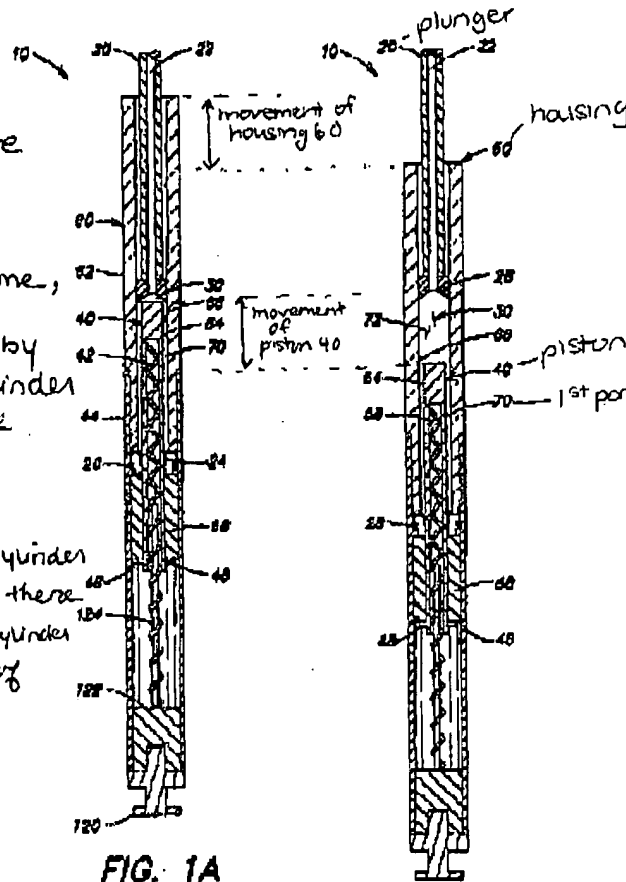


FIG. 1A



The syringe of this invention provides aspiration shown in FIGS. 6.1-6.5 and ejection or dispensing, shown in FIG. 7.1-7.5 of fluids in two resolutions. Bulk Mode is defined as a coarse (low) resolution/high flow/high volume mode of the dual resolution syringe. **In the Bulk Mode, the housing and the piston move together, causing the volume in the chamber to change. In Bulk Mode, the volume is displaced due to a change in the volume of the second portion 72 of the chamber.** The volume displaced is equal to the cross-sectional area of the housing multiplied by the vertical displacement of the piston. ('015 patent, Col. 9, lines 59 – Col. 10, line 2)

Differential Mode is defined as a fine (high) resolution/low flow/low volume mode of the Dual resolution syringe. In the Differential Mode either the housing moves relative to the piston, or the piston moves relative to the housing. In Differential Mode one of either the piston or the housing is stationary. As previously stated, the outer surface 64 of the piston is preferably uniformly spaced from the inner surface 66 of the housing to form a first portion 70 of the chamber 30. **In Differential Mode, the volume displaced is equal to the volume change in the first portion 70 of the chamber.** This volume change is equal to the difference between the cross sectional areas of the housing and the piston multiplied by the vertical displacement of either the piston or housing relative to one another. ('015 patent, Col. 10, lines 8-21)

Explanation of Support for claim 1 in US 10/692,654 in parent, U.S. Patent No. 6,805,015

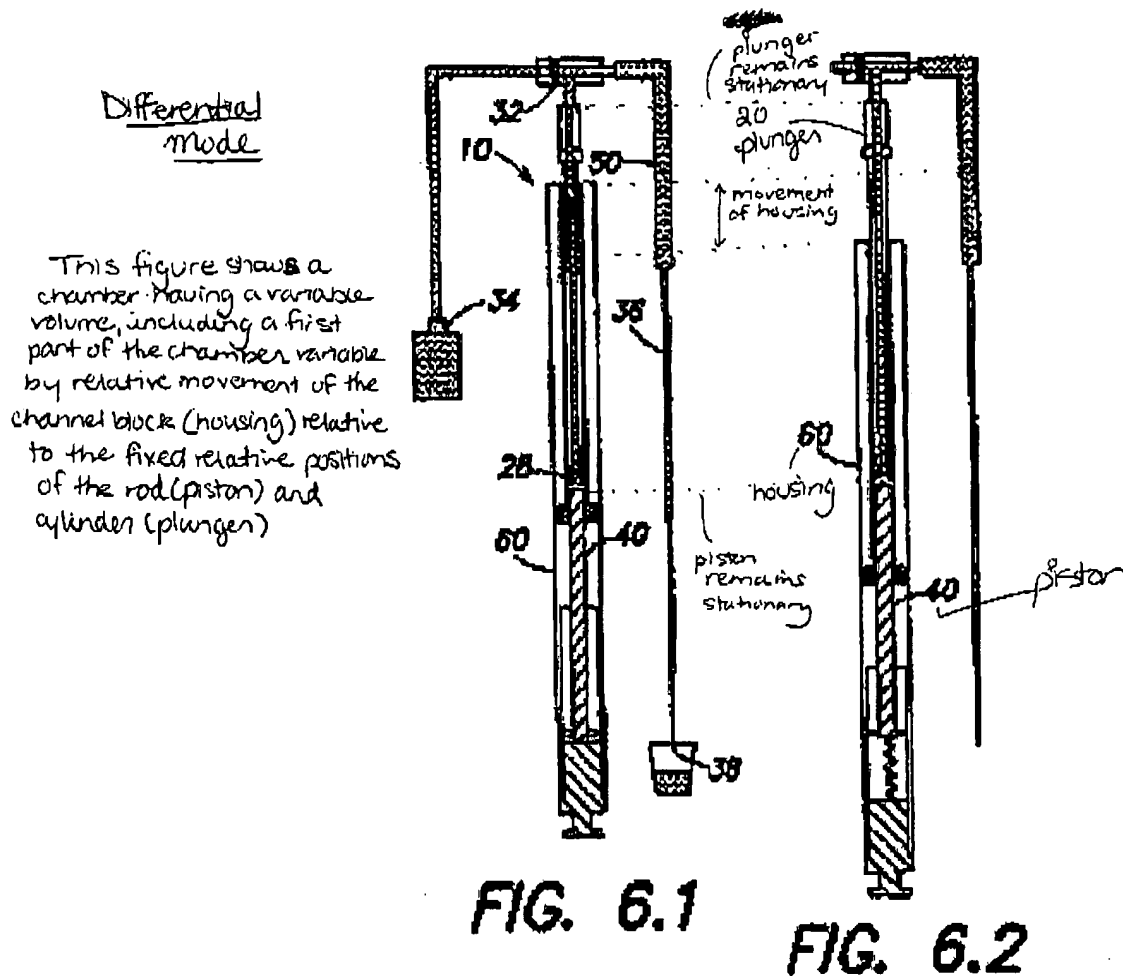


FIG. 6 shows full range aspiration, starting at the "home" or top position shown in FIG. 6.1, at the start of the Differential Mode. The top of the piston 40 is in contact with the wiper seal 28 and the spring is fully compressed. Previous to this position, the device had been primed by movement of the chamber valve 32 to permit fluid communication between the storage container 34 side and the syringe 10. **FIG. 6.2 illustrates downward movement of the housing 60 relative to the piston 40. This operates the differential capabilities of the present invention, as the volume aspirated into the device is equal to the difference in cross-sectional areas between the piston and the housing times the distance or height traveled. This Differential Mode enables high precision and accuracy.** FIG. 6.3 shows the transition point between Differential Mode and Bulk Mode, because the ledge 46 on the bushing contacts the tab stop 48 on the piston such that further downward housing movement will drag the piston with it. At this stage, the spring 42 is minimally compressed. As the housing 60 continues to move in the downward direction, FIG. 6.4 shows a midpoint in Bulk Mode. The piston 40 moves down with the housing 60 causing the volume of the chamber 30 to increase in the second portion 72 of the chamber. In Bulk Mode, the volume aspirated is relatively large and the device operates similar to a standard single piston syringe. FIG. 6.5 illustrates a maximum chamber 30 volume. ('015 patent, Col 10, lines 36-61)

Please let us know if you have any additional questions or if you would like to discuss this with us in greater detail.